

XX. *Botanical Characters of four New-Holland Plants, of the Natural Order of Myrti.*

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SINCE the publication of a paper in the third volume of the Linnean Society's Transactions, the aim of which was to fix the botanical characters of several genera and species of the natural order of MYRTI, hitherto not well determined; I have become acquainted with a few more of the same tribe, four of which it is my design to describe at present. The number might appear too inconsiderable to be the subject of a paper, nor should I, scarcely, have offered them in this form to the Society, were it not as a kind of necessary supplement to the former treatise; and had I not a few particular observations to propose respecting one of the plants.

3. * *LEPTOSPERMUM grandifolium*, foliis lanceolatis mucronatis subquinqüenerviis subtus pubescentibus, calycibus villosis: dentibus membranaceis coloratis.

A single specimen of this new species of *Leptospermum*, gathered by Dr. White in New South Wales, has been communicated to me by A. B. Lambert, Esq. It is much larger than any other I have seen of the genus, especially the leaves, which are above an inch long, and near a quarter of an inch broad. Their form is lanceolate, tapering more towards the base than towards the extremity, and they are tipped with a small prominent, sharp point; their margin is en-

ture, a little revolute; upper surface smooth and shining; lower paler, opaque, downy, punctate, marked with two obsolete longitudinal ribs on each side of the principal one. Flowers terminating the short lateral branches, solitary, sessile, surrounded with a few leaves; white, large and handsome. Calyx clothed all over with white silky down; its teeth membranous, whitish, less silky on the inside, most so externally about the tip. The germen is found to consist of only five cells; otherwise the appearance of the plant, and large size of all its parts, would have led me to suppose it a *Fabricia*, nearly allied to Gærtner's *myrtifolia*. As a *Leptospermum* it should be inserted between the third and fourth species, being next akin to the *lanigerum*.

- 5.* *L. imbricatum*, foliis obovatis imbricatis enerviis, ramulis calycibusque glabris; dentibus membranaceis coloratis carinatis.

Gathered near Port Jackson, New South Wales, by the late Mr. David Burton, and communicated to me by the Rt. Hon. Sir Joseph Banks. It is closely allied to the fifth species, *L. parvifolium*, but differs at first sight in the imbricated appearance of its numerous leaves on the long lateral branches; and the flowers will be found on examination totally distinct, being not half the size of those of *L. parvifolium*, standing two or three together about the extremity of each branch, not solitarily: their calyx moreover is in every part perfectly smooth, and its teeth sharply carinated, which in the other are only a little convex, and entirely destitute of any keel.

- 4.* *MELALEUCA squarrosa*, foliis sparsis oppositisve ovatis muticis quinquenerviis, floribus lateralibus, dentibus calycinis lævibus.

M. squarrosa. *Donn. Hort. Cant. ed. 2. 101.*

I am indebted to the Rev. Mr. Davies, F. L. S. Vice-Master of Trinity College, Cambridge, for specimens of this shrub, which was raised in the Botanic Garden of the University by Mr. Donn, from seeds brought from Port Jackson, and flowered in 1799. It should stand next to the *M. stypheloides*, to which its leaves bear some resemblance; but they are neither twisted nor pungent, neither have they more than five, or at most seven ribs; they are also more inclined to be opposite than in that species. The flowers are white, encircling the branches in longish clusters. Calyx-teeth blunt and without nerves, as in most of the other species, and totally unlike the ribbed acuminate teeth of *M. stypheloides*. Stamina collected together into bundles, but imperfectly, and never to any considerable distance from their base, so that it would scarcely be taken for a *Melaleuca* till the filaments in decay are found to fall off (for the most part) in clusters. The stigma is simple, as in *Metrofideros*.

The very imperfect connection of the stamina in this plant leads us to remark how little the distinction between *Melaleuca* and *Metrofideros*, and consequently even the character of the Linnæan class *Polyadelphia*, are founded in nature. Most plants indeed, of that class, like most species of *Melaleuca*, have the filaments so strictly united, for a considerable part of their length, into several (mostly three or five) *phalanges* or bundles, and those bundles fall off so entire, that the character derived from such a circumstance seems no less natural than convenient for the systematic botanist. In the *Melaleuca nodosa*, on the contrary, the union of the stamina is continued but a little way from the base, and it is even more slight in the plant now before us, many of the filaments being quite simple, and unconnected with their neighbours. The case is the same in the genus *Citrus*, of which Linnæus could not but be aware when he established this class, and indeed he alludes to the variableness of the character in his *Genera Plantarum* in describing *Citrus*. Neither is
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this character, slight as it is, connected with any peculiarity of habit by which a *Melaleuca* can be known from a *Metrofideros*; nor, I believe, would any botanist venture to guess at a *Melaleuca* without seeing the stamina, in which the only peculiarity of the genus resides. What then is to be done, when even this peculiarity seems eluding our grasp? We can only retain the genus as an artificial one, along with many other such, till the science be arrived at a greater degree of perfection; keeping, in the mean time, *natural orders* in view as the grand object of our systematic inquiries, and cherishing every truly *natural genus* as a fixed point, on which we may found the principles of future discoveries.

- I. * *EUCALYPTUS marginata*, operculo conico magnitudine calycis, umbellis lateralibus, foliis ovatis margine incrassatis.
E. marginata. *Donn. Hort. Cant. ed. 2. 101.?*

Mr. Aiton favoured me with specimens of this plant three years ago from Kew Garden. The seeds were brought from Port Jackson. Its leaves agree very much in form with those of *E. robusta*, (next to which it ought to be placed,) but the footstalks are shorter, veins more prominent, and the margin more thickened, somewhat cartilaginous, and reddish. The umbels are solitary, axillary, and simple. Flowers scarcely one-third of the size of the *robusta*, and their covers are neither broader than the calyx, nor longer; neither are they contracted in their middle. The flowers much resemble those of my *E. pilularis*, but the leaves are totally different.